Distribution and breeding biology of Craveri's Murrelet

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Abstract.—Craveri's Murrelets breed mostly on islands in the Gulf of California, but recent data indicate some nesting on the Pacific Coast of Baja California. Murrelet numbers build in the Gulf of California in late December. The birds probably arrive in the Gulf of California as pairs and generally occupy nests from February through May. Nests are usually found in crevices not far from high tide, and they contain an average of 1.88 eggs per clutch during years of normal productivity. Adult-chick groups varied between 1.5 and 1.3 chicks per group in 1972 and 1974. Murrelets and other seabirds nesting in the Gulf failed to produce significant numbers of young in 1973.

In the Gulf of California, murrelets feed mostly on larval fishes and small adult pelagic fishes, at or near the surface, over deep water; a limited number of invertebrates are also taken. Following the breeding season in June and July they disperse northward along the California Coast and southward along the West Coast of Mexico. This dispersal pattern is similar to that of other seabirds in the Gulf of California.

Craveri's Murrelet *(Endomychura craveri)* is the only alcid known to breed in the Gulf of California. Expeditions into the Gulf have provided most of the published information concerning the species' distribution and natural history, but detailed data are scarce. This paper reports our observations on breeding range, biology, and dispersal that we made on the species from 1971 to 1974 incidental to our other seabird studies. It attempts to synthesize the existing data available in the literature, and some miscellaneous observations from 1975 are also included.

METHODS

Murrelets were observed irregularly between February and July each year, mainly in the Midriff Region of the Gulf of California (the area where islands extend across the Gulf; Fig. 1). Their number, location, distribution, association with other species, and age ratios were routinely recorded on most trips. On occasion, nest searches were conducted, especially on islands where breeding had not been previously reported.

We were able to distinguish young from adult murrelets until the young were about three-fourths grown (Fig. 2). We collected five adult Craveri's Murrelets near Isla Las Animas in the Gulf of California on 12 and 17 April 1971 for food habits and pesticide-residue analysis. In addition, 63 sets of eggs and associated data were examined from the collections of the Western Foundation of Vertebrate Zoology (WFVZ), Los Angeles, and the Museum of Vertebrate Zoology, Berkeley.

In this report, we consider Craveri's Murrelet and Xantus' Murrelet *(E. hypoleuca)* as distinct species (A.O.U. 1957: 252-53; Jehl and Bond 1975).

BREEDING RANGE

Craveri's Murrelet has been previously reported to breed only on islands in the northern half of the Gulf of California, and on islands along the southwestern side. Records are summarized in Figure 3 and Table 1. Consag Rock (A.O.U. 1957: 253) and Isla San Jorge (van Rossem 1926) have been considered the northernmost breeding locations in the Gulf and Isla del Espiritu Santo (Grinnell 1928: 58) and Isla San Francisco (Bent 1919: 156) the southernmost. According to Bancroft (1927), the species' "center of abundance" during breeding lies north of the 28th parallel.

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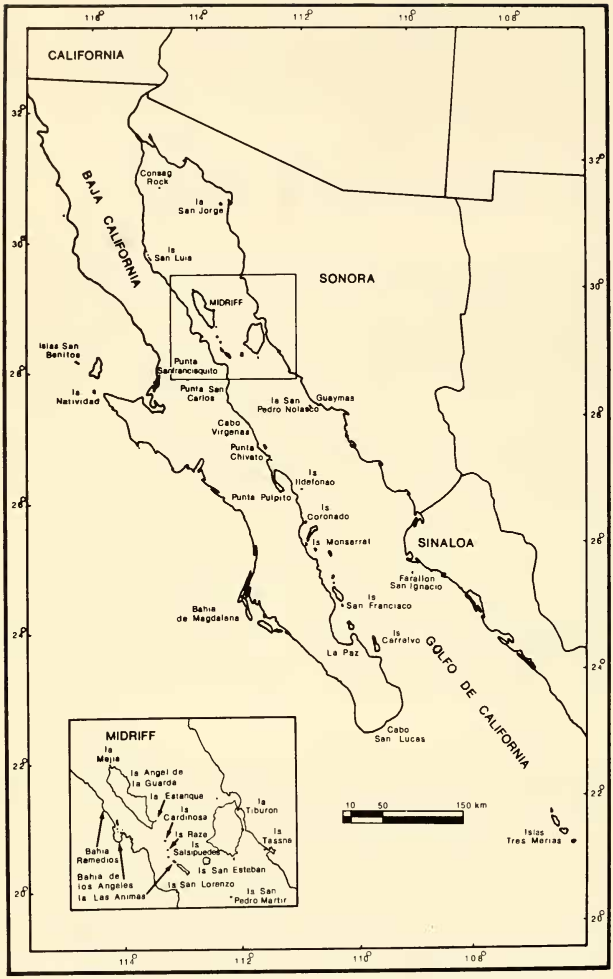

Figure 1. General map of the Gulf of California showing the major locations mentioned in the text.

Other breeding areas of Craveri's Murrelets are not so well-known. Murrelets also nest, though perhaps sparingly, on islands along the Sonora coast of the Gulf. In 1974 and 1975, we found an isolated area on Isla Tassne (Fig. 1, Table 1) with two or three active murrelet nests. We also suspect recent nesting on Islas San Pedro Martír and San Pedro Nolasco, based on our observations, and those of others, of murrelets near the island during the breeding season. A report by van Rossem (1945: 96) mentions breeding on San Pedro Martír, and the same report suggests that San Pedro Nolasco is the southernmost breeding location on the eastern side of the Gulf. There is only one island farther south (Fig. 1), Farallon San Ignacio, which we believe could have nesting murrelets. Surveys of the Tres Marías Islands, off the coast of Nayarit, have failed to reveal nesting murrelets (Stager 1957, Grant and Cowan 1964, Grant 1964).

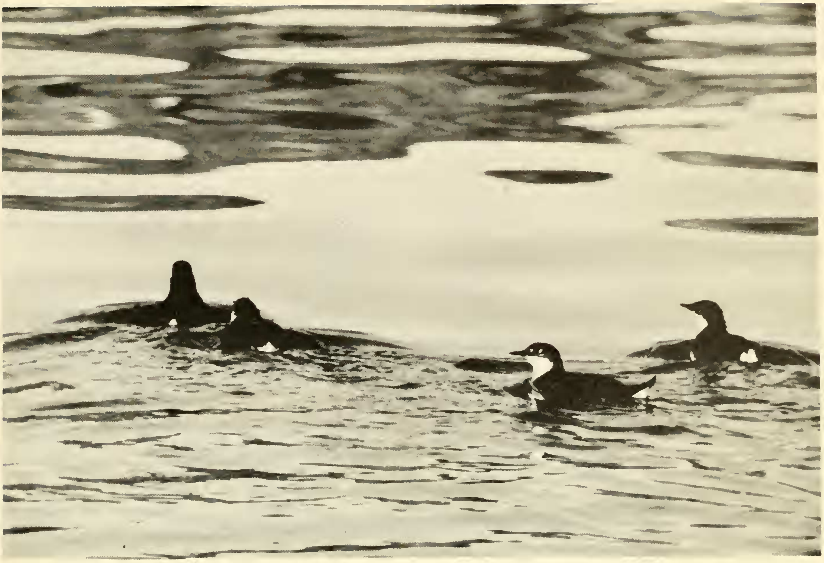

Figure 2. A parent-chick group of Craveri's Murrelets encountered near Isla las Animas on 8 April 1972. At this age, chicks at a distance become difficult to distinguish from adults. Note the differences in the head feathers between adults and chicks.

Recently, DeLong and Crossin (Ms.) and Jehl and Bond (1975) have presented circumstantial evidence that Craveri's Murrelet breeds on islands along the west coast of Baja California. More exploration is needed at Bahía de Magdalena and the islands north of there to Islas San Benitos, where *E. hypoleuca* (2 ssp.) and *E. craveri* may breed sympatrically (Jehl and Bond 1975).

Banks (1963a) failed to find murrelets nesting on Isla Cerralvo (Fig. 1), despite intensive surveys there. His report of feral cats on Cerralvo, however, may partly explain the absence of recent nesters. Regardless, all evidence known to us suggests that there may be a gap in the breeding range of *E. craveri* around the tip of Baja California.

BREEDING BIOLOGY

Breeding buildups and the nesting season.—Murrelet eggs have been reported from 6 February through 30 April (Bent 1919: 156, van Rossem 1926). Paired birds are present in the breeding areas by late December-early January (van Rossem 1932, 1945: 96), several weeks prior to laying. In late February-early March 1973, 90% of our murrelet sightings involved paired birds (59 encounters with one or more murrelets). These observations were between Bahía de los Angeles (Area A) and Isla Monserrat, Baja California (Area F) (Table 2). During the same period in Area C where there are no nesting islands, murrelets occurred in loose groups of pairs (Table 2). Our observations thus suggest that murrelets were largely paired before they arrived in nesting areas; the loose assemblages may be a result of birds exploiting good feeding conditions. Lamb (1927) reported a high incidence of paired Xantus' Murrelets on the Pacific Coast near Natividad Island in December 1924. Marbled Murrelets *(Brachyramphus marmoratum)* also occur most frequently in pairs (J. M. Scott, pers. comm.). Sealy (1975) collected "pairs" of Marbled Murrelets, and concluded that these alcids arrive in their breeding areas already

Table 1. Records of Craveri's Murrelets used in distributional studies.

Location[1]	Date reported	Evidence	Information source
Confirmed, possible, and suspected breeding records			
Consag Rock, GC	No data	Probably breeds	Bancroft (1927)
Is. San Jorge, GC	No data	Eggs seen	Bancroft (1927)
	April 1925	Collections	van Rossem (1926)
	March 1926	Eggs collected	N. K. Carpenter[2]
	April 1954	Eggs collected	C. Andersen[2]
Is. San Luis, GC	No data	Eggs seen	Bancroft (1927)
	April 1970	Adult-chick groups	This study
North end Is. Angel de la Guarda, GC	April 1972	Adult-chick groups	This study
Is. Mejia, GC	May 1974	Eggshells found	This study
Bahía de los Angeles area, GC	1926	Collections	van Rossem (1926)
	April 1972	Adult-chick groups	This study
	June 1972	Large young seen	This study
	March 1974	Eggs and young seen	This study
Is. Estanque, GC	March 1962	Eggs seen	Banks (1963b)
Is. Cardinosa, GC	March 1972	Nest and eggs seen	This study
	April 1972	Adult-chick groups	This study
	March 1974	Nests and eggs seen	This study
Is. Raza, GC	1865	Collections	Grinnell (1928)
	April 1875	Eggs collected	Bent (1919)
	April 1972	Adult-chick groups	This study
Bahía de las Animas area, GC	March 1974	Adult-chick groups[3]	This study
Is. las Animas, GC	March 1972	Young heard	This study
	April 1972	Adult-chick groups	This study
	May 1974	Eggshells found	This study
Is. San Esteban, GC	May 1971	Eggshells seen	This study
	April 1972	Adult-chick groups	This study
Is. Tassne, GC	March 1974	Nests and eggshells	This study
Is. San Pedro Martír, GC	April 1925	Breeds	van Rossem (1945)
	May 1973	Birds seen	This study
Is. San Pedro Nolasco, GC	No data	Breeds	van Rossem (1945)
Is. San Marcos, GC	April 1963	Birds seen[3]	Banks (1963b)
Is. Ildefonso, GC	1909	Found breeding	Grinnell (1928)
	March 1928	Eggs collected	C. C. Lamb[2]
	March 1928	Eggs collected	N. K. Carpenter[2]
	April 1920's	Collections	van Rossem (1926)
	March 1930	Eggs collected	G. Bancroft[2]
Is. Coronado, GC	April 1920's	Collections	van Rossem (1926)
Puerto Escondido, Is. Monserrat area, GC	March 1963	Birds seen[3]	Banks (1963b)
Is. San Francisco, GC	1909	Collections	Bent (1919)
	March 1929	Eggs collected	C. C. Lamb[2]
	March 1930	Eggs collected	G. Bancroft[2]
Isla del Ispiritu Santo area, GC	March 1887	Adult-chick groups[3]	Brewster (1902)
Bahía de Magdalena area, BWC	June 1897	Collections[3]	Anthony (1900)
Islas San Benitos, BWC	June 1968	Collections[3]	DeLong and Crossin (ms.)
Records outside known breeding range, or breeding season			
Cabo San Lucas, GC	1859-1883	Collections	Grinnell (1928)
Is. Natividad area, BWC	No data	Collections	Ridgway (1919)
	Postbreeding	Probable	Bent (1919)
Is. de Guadalupe	June 1906	Collections	Green and Arnold (1939
Off San Diego, CA	Aug. 1914	Collections	Willett (1933)
	Aug. 1915	Collections	van Rossem (1915)

Near Catalina Id., CA	Aug. 1928 Aug. 1932	Collections Collections	Willett (1933) Willett (1933)
Near Morro Bay, CA	Sept. 1969	Collections	McCaskie (1971)
Near Monterey Bay, CA	Aug.-Oct.	Collections	van Rossem (1926)
Off Oregon Coast	Aug. 1975	Beached carcass	Jehl (1975)
Is. San Esteban area, GC	Jan. 1932	Birds seen	van Rossem (1945)
Is. Tiburon, Bahía Kino area, GC	Dec. 1931	Birds seen	van Rossem (1945)
Off Bahía Kino, GC	Feb. 1972	Birds seen	This study
Is. San Pedro Martír area, GC	Jan. 1932	Birds seen	van Rossem (1945)
Is. San Pedro Nolasco area, GC	Dec. 1931	Birds seen	van Rossem (1945)
Near Mazatlan, Sinaloa, MWC	Winter	Birds seen	Alden (1969)
Off Guatemala, CEN	April 1973	Bird seen	Jehl (1974)

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[1] Abbreviations used: Is. = Isla, Id. = Island, GC = Gulf of California, BWC = Baja California West Coast, CA = California Coast, MWC = Mexico West Coast, CEN = Central America West Coast.

[2] Field notes on file, Western Foundation of Vertebrate Zoology.

[3] Likely nesting areas, but not confirmed.

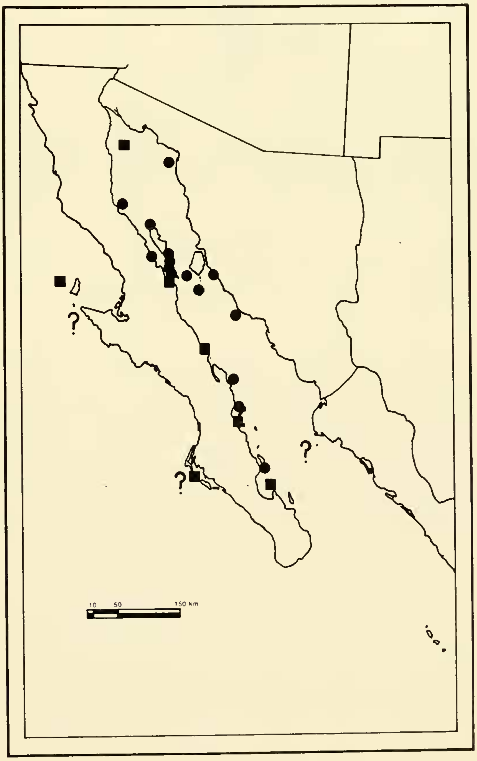

Figure 3. Breeding records of Craveri's Murrelet. Solid circles represent confirmed nesting reports, solid square represent reports that are strongly suggestive of breeding, and question marks signify areas that need further exploration.

Table 2. Pairs of Craveri's Murrelets in the Gulf of California along the east coast of Baja California from mid-February through early March of 1973.

Area[1]	No. birds observed	Birds as solitary pairs No.	Birds as solitary pairs %	Birds as multiple pairs No.	Birds as multiple pairs %	Maximum pairs per group observed
A	36	8	22	28	78	4
B	50	4	8	46	92	17
C	0	0	-	0	-	-
D	19	2	11	16	84	8
E (trip 1)	14	2	14	12	86	4
E (trip 2)	14	2	14	12	86	3
F	9	0	0	8	89	4

[1] Areas, north to south, are coded as follows: A = Midriff area, B = Punta San Francisquito through Punta San Carlos, C = Punta San Carlos to Cabo Virgenes, D = Cabo Virgenes through Punta Chivato, E = south of Chivato to Punta Pulpito, F = Punta Pulpito to Isla Monserrat.

paired. Subadults returned about the same time, but mostly as isolated individuals *(ibid).*

Our records from the northern one-third of the Gulf of California indicate that murrelets began to arrive in January and that numbers increased through April-May, depending on the year (Fig. 4). The high numbers of murrelets in April and May 1971-72 (Fig. 4) occurred at the period when adults were taking flightless young to sea. The period January through April is probably the time when most birds arrive and seclude themselves at nest sites. During 1973, murrelets apparently did not remain in the Gulf (Fig. 4) through the period when parent-chick groups would normally be observed.

Nesting, young, and productivity.—Details on the nesting of Craveri's Murrelets are briefly described by Brown (*In* Bent 1919: 154) and others. They are reported to nest in burrows or cavities (Bancroft 1927), but they may nest under large rocks or bushes (C. C. Lamb, field notes, 1929, on file at WFVZ). Both sexes incubate a reported clutch of two eggs, nest exchange is made in the dark, and adults are not found on land except when on nests (Bent 1919: 153-56). Descriptions of nest sites we found in 1974 are given in Table 3. One nest found on 17 March 1972 by J. O. Keith on Isla Cardinosa (Fig. 5) was occupied annually by nesting murrelets through 1975, when it was destroyed by a rock slide.

All previous records and most of our observations suggest that Craveri's Murrelets nest only on islands. However, on 18 May 1974, we observed a parent-

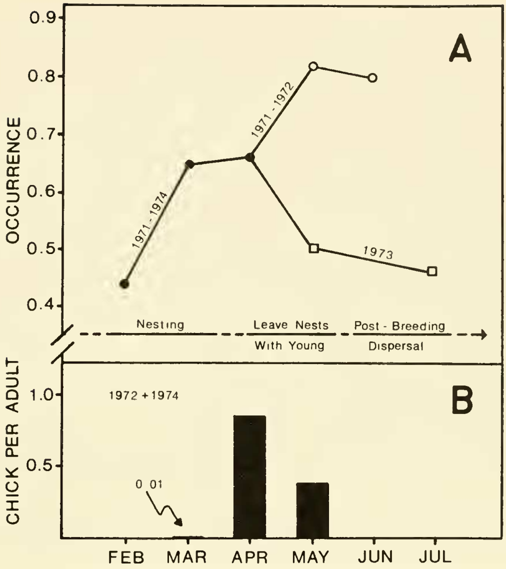

Figure 4. Occurrence patterns of Craveri's Murrelets in the Gulf of California. *A.* Relative occurrence during different years. Occurrence = transects where murrelets were encountered divided by total transects taken for the period. Transects varied in length from about 15 to 30 km. In May and June 1974, boat travel was not sufficient to obtain an adequate sample. *B.* Age ratios in 1972 and 1974; few young were seen in 1973.

Table 3. Site descriptions and contents of Craveri's Murrelet nests found during 1974.

Date	Location	Occupancy	No. eggs	Meters above high tide	Site description
24 March	Is. Cardinosa	Adult	2	3.0	Under low cliff base, nest floor of fine talus
25 March	Is. Cardinosa	Unattended[1]	2	2.7	Shallow hole in talus slope
	Is. Cardinosa	Adult	2	5.5	Under a rock, nest floor of sand
	Is. Cardinosa	Adult	2	5.5	Under a rock, nest floor of small pebbles
	Is. Cardinosa	Unattended[1]	1	5.5	Shallow hole in rocky slope
	Is. Cardinosa	Unattended[1]	2	3.0	Shallow hole in cave, nest floor of small pebbles
6 May	Is. Tassne	Unattended[1]	2	0.6	In narrow crevice
	Is. Tassne	Unattended[1]	1	0.6	In narrow crevice
	Is. Tassne	Unattended[1]	hatched shell	0.3	In narrow crevice

[1] Eggs cold or damaged.

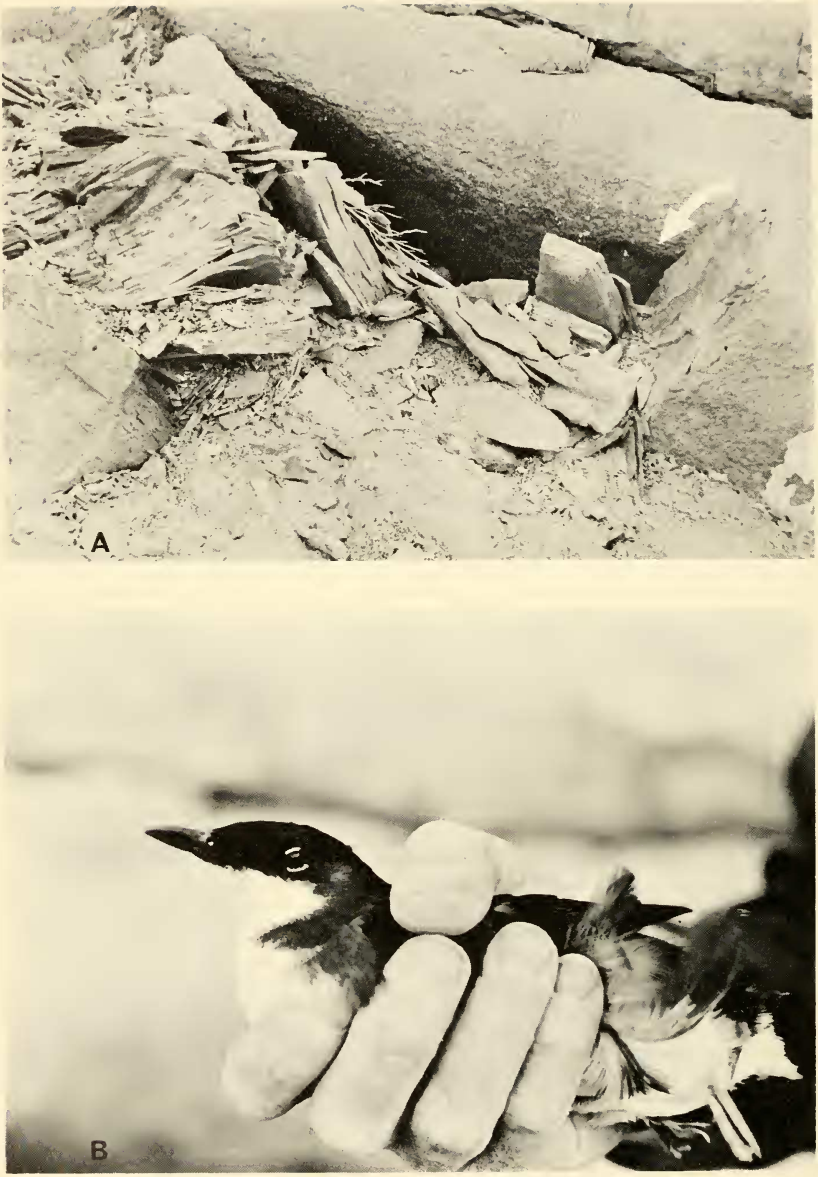

Figure 5. *A.* Craveri's Murrelet nesting crevice found on Isla Cardinosa on 17 March 1972. The white arrow points to the location of the incubating adult. *B.* A close-up view of the adult found in that crevice.

Table 4. Location and numbers of Craveri's Murrelet chicks per adult-chick group seen in the Gulf of California in April 1972 and May 1974.

	No. of groups		Chicks per adult-chick group		Chicks per adult	
Area	1972	1974	1972	1974	1972	1974
North end Is. Angel de la Guarda	11		1.5		0.8	
Bahía de los Angeles	13	8	1.5	1.2	0.9	0.7
Islas Cardinosa and Raza	8		1.5		0.8	
Islas Salsipuedes and las Animas	15	2	1.7	1.5	0.9	1.0
Isla San Esteban	5		1.2		0.6	
Totals[1]	52	10	1.5	1.3	0.8	0.8

[1] Data include 111 adults and 93 chicks. Only three adult-chick groups seen in 1973--young per group = 1.3, and young per adult = 1.0.

chick group (2 adults and 2 chicks) with small chicks near Bahía Remedios, Baja California, within 30 m of the mainland and at least 10 km from any islands. Thus, nesting on the mainland in situations where the shoreline is isolated and protected from predators by precipitous and extensive cliffs (as at this particular area near Bahía Remedios) seems possible.

For the 63 museum sets of eggs believed to represent complete clutches, clutch size averaged 1.94 (C/1-7, C/2-53, C/3-3). Brewster (1902: 19) states that adult females collected during the breeding season off La Paz, Baja California, had two "bare incubating spaces on the belly." The three-egg clutches, thus, probably represent eggs from more than one female. In seven nests examined in 1974 (Table 3), the mean clutch size was 1.85. Excluding the three-egg clutches above, the mean clutch size, including our field data, is 1.88.

The young are protected with heavy down at hatching and move to sea 2 to 4 days after hatching (Bent 1919: 54, Bancroft 1927). Most of the young murrelets we saw at sea were one-fourth to two-thirds grown; and they were most often detected by their calls. Parent-chick groups were observed near several islands from 1972 to 1974 (Table 4), usually less than 1.6 km from shore. We could not determine the origins of these groups, and assumed that those with small young and those very near shore had bred nearby. As the season progressed, groups were found farther at sea. The young were always near adults at least until late June, when they could no longer be distinguished.

The average number of young per parent-chick group was nearly constant in the area surveyed in 1972 and 1974 (Table 4). We devoted more effort to locating parent-chick groups in 1972 and 1973. Our few observations in 1974 were due to reduced effort. In view of the data on clutch size, two parent-chick groups were not included in our analysis, one with three chicks and one with four.

Few juvenile murrelets were encountered in 1973. In April-May 1972 (the period of expected greatest frequency of emerging young), young were tallied on 49 of 71 trips (65%) (95% Confidence Limits = 63% - 77%), whereas in 1973, they were tallied on only 3 of 18 trips (16%) (95% Confidence Limits = 4% - 41%). In 1972, we also estimated, on the basis of encounters with adults only or adults plus

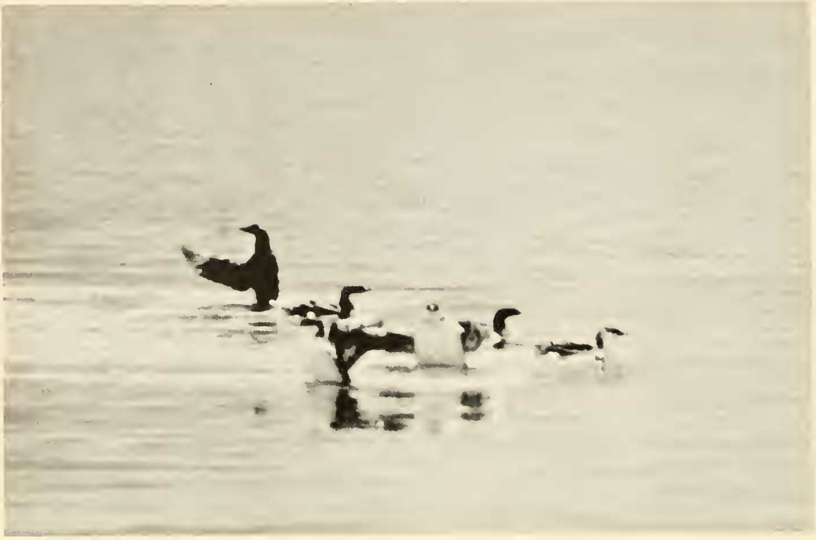

Figure 6. A group of Craveri's Murrelets (apparently four adults and two chicks) seen near Isla Smith on 29 June 1971. Such groups were not commonly seen. Note the dark underwing coverts.

young, that 79% of pairs in the Midriff Region produced young; in 1973, only 12% bred successfully. Productivity apparently returned to normal in 1974 (Table 4). Other seabirds in the Midriff area also produced few young in 1973 (Anderson 1973).

Attendance of chicks and the pair bond.—Craveri's Murrelets remain close to their young during the postbreeding period and apparently forage as a family unit. Two adults were seen with 81% of the broods in 1972 and solitary murrelets were rare in all years. In fact, adult murrelets were paired most of the times we saw them, except possibly during incubation when adults would be expected to be separated (Sealy 1975). Frequent observations of "twosomes" at sea during the nonbreeding period, and the high frequency of adult male-female duos collected at sea (J. R. Jehl, Jr., pers. comm.) suggest that *Endomychura* murrelets remain paired year-round. There are no data to suggest that "twosomes" observed after the breeding season represent parent-chick groups that have split to one adult and one chick, as has been reported for Common Murres *(Uria aalge)* (Scott 1973).

Feeding and food habits.—We never saw murrelets feeding in close association with other seabirds. They fed alone 74 of the 78 times we observed them in 1973 and all 25 times in 1974. (We had the same impression in 1972, although we did not record murrelet associations that year.) On the other four occasions in 1973, murrelets were feeding in the general vicinity of feeding Common Dolphins *(Delphinus bairdi)* or Eared Grebes *(Podiceps nigricollis)*.

In addition, murrelet groups rarely fed with each other and only rarely did "assemblages" of murrelets involve multiple pairs (Table 2) or multiple parent-chick groups (Fig. 6). Sometimes Craveri's Murrelets form "assemblages to exploit a local food source, but this seems rare during the breeding season. Common Murres, Rhinoceros Auklets *(Cerorhinca monocerata)*. and Tufted Puffins *(Lunda cirrhata)*, on the other hand, are frequently seen in mixed-species feeding flocks off the Oregon coast (J. M. Scott, pers. comm.), and numerous alcid species are involved in "interspecific feeding assemblages" off British Columbia (Sealy 1973).

Table 5. Identifiable food items found in five Craveri's Murrelet stomachs collected in the Gulf of California in 1971.

IDENTIFICATION[1] Common name (Scientific name)	No. individual food items	No. Murrelets
SCORPAENIDAE - rock fishes		
Rockfish (Sebastes sp.)	17	4
CLUPEIDAE - herrings		
Thread Herring (Opisthonema? sp.)	12	4
MYCTOPHIDAE - lantern fishes		
(Benthosema panamense)	8	4
CARANGIDAE - jacks		
(Caranx? sp.)	1	1
SCOMBRIDAE - mackerels		
Pacific Mackerel (Scomber japonicus)	1	1
UNIDENTIFIED FLATFISH	1	1
OTHER UNIDENTIFIED	2	1
INVERTEBRATES		
Unidentified squid	1	1
Unidentified shrimp	many	1

[1] Names are in most part from Miller and Lea (1972) and specimens were identified by J. E. Fitch (personal communication).

Fish otoliths and other undigested materials were removed from five murrelet stomachs collected in 1971 (Table 5); all otoliths except the lantern fishes were from larval fishes. The composition of these samples indicated that the murrelets had been feeding at or near the surface over deep waters (J. E. Fitch, pers. comm.).

Fish dominated, although invertebrates were also present (Table 5). The largest whole fish found in the murrelet stomachs were 40 to 70 mm long. Fish seen passed from adults to chicks were about the same size.

Predation.—The vulnerability of murrelets in their nesting cavities is readily apparent from the ease with which they can be captured. However, we found no evidence of predation on adults in nesting crevices, although we did observe some punctured eggs on Islas Cardinoas and Tassne.

Cats have been serious predators on murrelets and other alcids on some islands (Green and Arnold 1939; Hunt and Hunt 1974; Wright 1909; van Denburgh 1924), but we found no evidence of such predation in the Gulf of California. There are feral cats and rats (*Rattus* sp.) on some of the islands in the Gulf of California, and the spread of any introduced predators should be considered a threat to murrelets.

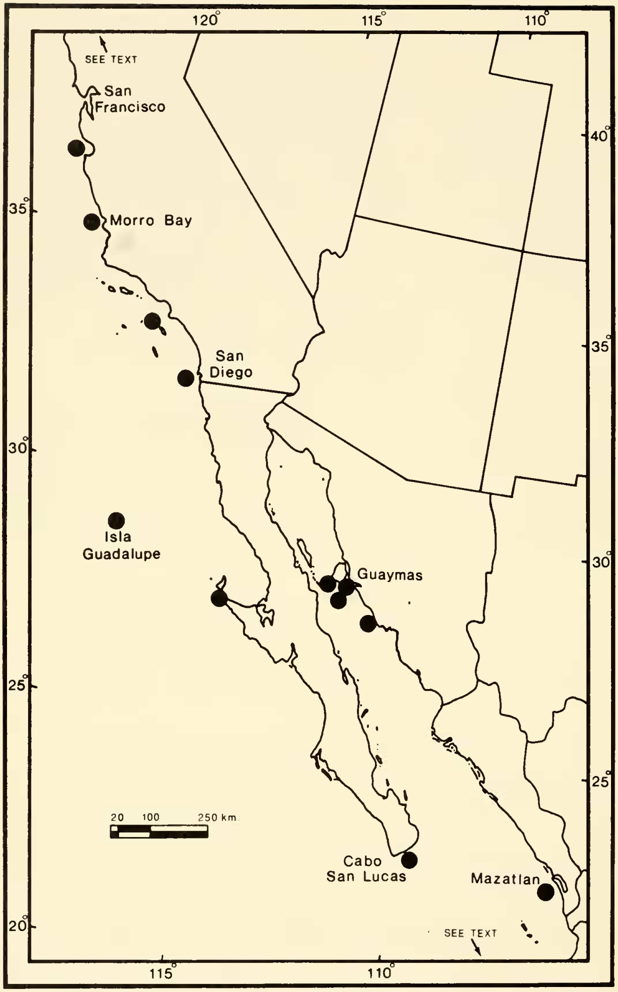

Figure 7. Summary of records of Craveri's Murrelets outside the known breeding season. Circles represent birds seen or collected.

Thoresen (1964) reported that Western Gulls *(Larus occidentalis occidentalis)* preyed heavily on Cassin's Auklets *(Ptychoramphus aleutica)* chicks on or near their nesting islands in central California. Western Gulls are also known to attack adult murrelets (Oades 1974). We never saw an attack by Yellow-footed Western Gulls *(L. o. livens)* in the Gulf, even though the gulls were numerous near murrelet nesting areas.

We found evidence of predation on adult murrelets at several Peregrine Falcon *(Falco peregrinus)* eyries; and at one eyrie, Craveri's Murrelet remains constituted 8% of the food items. On Isla Tassne, we also observed heads and wings of adult murrelets left by Barn Owls *(Tyto alba)*. Banks (1963b) also reported murrelet remains at Peregrine eyries and in the pellets of barn owls from the Gulf of California, and these two avian predators are likely the major natural predators of nesting murrelets. Most murrelets taken are probably adults captured entering and leaving their nesting cavities, or at sea during the day.

POSTBREEDING DISPERSAL

Since most research in the Gulf of California is conducted during the breeding season, little information is available on murrelets during the postbreeding period. van Rossem (1945: 96) reported them in midwinter in the Gulf. As shown in Figure 4, murrelets largely disappear from the Gulf in June and July, though perhaps never completely. Records after the breeding season are summarized in Figure 7 and Table 1.

After breeding, Craveri's Murrelets are found regularly on the Pacific Coast from northwestern Baja California to Monterey, California (Grinnell 1928, Jehl and Bond 1975); and there is one recent record for Oregon (Jehl 1975).

Grinnell and Miller (1944: 180) considered Craveri's Murrelets off California as "autumnal visitants;" they believed that in some autumns this species reached the California Coast in considerable numbers. This fall influx parallels in timing and variable intensity a similar movement of California Brown Pelicans *(Pelecanus occidentalis californicus)*, Heermann's Gulls *(Larus heermanni)*, and other species from the Gulf of California to the Pacific Coast of Baja California and California (Anderson and Anderson 1976).

Increased interest and effort by offshore observers probably accounts for the recent increase in Craveri's Murrelet sightings off the coast of California (McCaskie 1971). Likewise, the lack of Xantus' Murrelet reports off the Oregon and Washington coasts has been attributed to the scarcity of observers until 1969 (Scott et al. 1971). McCaskie (1969) suggests that the difficulty in distinguishing *E. craveri* from *E. hypoleuca* in the field probably also limited earlier reports of Craveri's off California. Since 1968, they have been reported with regularity, though in varying abundance, in late summer (McCaskie 1972).

Other areas were postbreeding distribution should be investigated are the coastal areas off mainland Western Mexico and south. Alden (1969: 58-60) stated that murrelets can be seen on "winter boat trips" as far south as Mazatlan, Sinaloa. This report is imprecise and more detail would be desirable. It is, however, apparently the only report that murrelets are common in winter outside the Gulf of California, and to the south. We suspect that the distribution of *E. craveri* may extend even farther south than Mazatlan. Jehl (1974) reported a Craveri's Murrelet off the coast of Guatemala in April 1973. This record is especially unusual because it occurred during the normal breeding season, but was obtained in a year of breeding failure for murrelets in the Gulf of California.

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